

GODMANCHESTER
Urban District Council.

REPORT
UPON THE SANITARY CONDITION

OF THE

BOROUGH of GODMANCHESTER,

FOR THE YEAR 1905.

BY

HERBERT LUCAS, M.R.C.S., L.S.A.,
MEDICAL OFFICER OF HEALTH.



HUNTINGDON:
ALFRED WOOD, PRINTER,



1906.

TO THE
GODMANCHESTER URBAN DISTRICT COUNCIL.

GENTLEMEN,

Godmanchester is a Borough situate on the south side of the river Ouse, with an area of 4.659 acres. The Borough proper is located on the banks of the river, with many straggling streets and lanes, and spreading over a considerable acreage, flanked on the East and West by extensive commons which are at times flooded.

The rising ground on the southern side of the Borough is dotted with farm-houses and homesteads. The soil of the Borough proper is gravel, and that of the higher ground Oxford Clay.

It is a purely agricultural district with a tendency to fall in the matter of population, there being a difference of 78 between the Census 1891 and 1901.

House accommodation for the labouring classes is of a mixed character. The old thatched cottages are gradually being re-placed by more modern dwelling-houses, and the house accommodation is generally improving. There is plenty of open space about the houses, the cleanliness of the surroundings in some places is not of a high class, the yards being imperfectly paved and gravelled. At the present time there are no Bye-laws compelling people to submit plans to your Surveyor before building new dwelling-houses.

Sewers and Sewerage.

There is a complete system of sewerage and drainage. The sewers discharge into two brooks which coalesce at a distance of from 400 to 500 yards, and form one stream which empties itself into the Hemingford head of the river Ouse, about $1\frac{1}{2}$ miles distant.

Very little faecal matter passes through the sewers as the pail system is almost universally adopted.

The sewers are well flushed with water from the river from the Godmanchester head, and by means of water pumped into a tank at the upper end of the system by a ram at the old water mill, which supplies the motive power. The old brick sewers are being re-placed by sanitary pipes from time to time.

The pail system is adopted for the removal of excrement, which is carted out of the Borough in your own carts and by your own men, and disposed of in a field far removed from any possible risk of well pollution. House refuse is also removed in the same way and placed in the same field, except when occupiers choose to cart it to their own fields or allotments outside the Borough proper. The removal of house refuse is much facilitated by the use of sanitary dust-bins which are being generally adopted. The refuse is removed once a week or oftener if required.

Water Supply.

Water is obtained from shallow wells sunk in the gravel of the Ouse valley, this is liable to pollution. Notices have been posted on all the pumps, advising the inhabitants to boil their water before using it for drinking purposes,

Three samples of water were sent for analysis during the year, and were all pronounced unfit for drinking purposes. One well was closed.

Lodging Houses, Slaughter-Houses, Bakehouses, Daires, Cowsheds, Milkshops, and Factories. (of which only one now exists, a Flour Mill) are regularly visited by the Inspector, who also periodically inspects the schools.

Abatement of Nuisances.

Your Surveyor gives notice as to the abatement of nuisances, and if not attended to reports to your Authority.

Isolation Hospital.

The question of an Isolation Hospital has been before your Council, and I hope means will now be taken to secure a suitable Hospital at a small cost, for the treatment of infectious diseases. Two Third Class Carriages have been secured for the reception of cases of Small Pox and placed in a very suitable situation.

Disinfection.

Disinfection is carried out by your Inspector principally by means of the Formic Aldehyde Lamp.

Inspections.

In December last I made a systematic Inspection of the whole District, accompanied by your Surveyor and Inspector of Nuisances. I have made other Inspections when diseases or nuisances existed to which my attention had been called. Your Inspector has ordered all insanitary conditions existing to be remedied, and has seen that his instructions are carried out.

Births and Deaths.

During the year the births of 61 children have been registered, 29 males and 32 females; an average of 30·2 per 1000 persons living.

The deaths of 33 persons residing in the Borough, and of 1 person belonging to the Borough who died in a Public Institution outside the Borough have been registered making a total of 34, a rate of 16·8 per 1000 persons living; 11 deaths occurred in children under one year of age.

Prevalence of Zymotic Disease.

Sixty-three cases of Zymotic Disease have been notified during the year—One of Erysipelas, Sixty-one of Scarlet Fever, and One of Diphtheria.

Diphtheria.

One case of Diphtheria occurred. This case was imported, a young man came down from London for his holidays, and stayed with some friends also Visitors, in Lodgings in the Borough, on the second day of his visit he was seized with Diphtheria of a serious type. Antitoxin was administered and he made a good recovery. His friends were treated with Prophylactic doses of Antitoxin, and none of them developed the disease. There was no spread of disease in the District.

Erysipelas.

One case of Erysipelas was notified, insanitary conditions were present and were remedied.

Scarlet Fever.

Sixty-one cases of Scarlet Fever were notified.

This was a continuation of the outbreak in Huntingdon. The disease spread through the Borough, and was not confined to the Borough proper, but affected isolated farm-houses. I hope the epidemic is now at an end, as only one case has been notified since the middle of last November. Only one fatal case occurred.

Small Pox and Vaccination.

No case of Small Pox was notified. I hope soon re-vaccination will be made compulsory, as in the absence of Small Pox the necessity for re-vaccination is lost sight of.

Enteric Fever.

No case of Enteric Fever was notified.

Diseases of Respiratory Organs.

Six deaths from Diseases of Respiratory Organs were registered, making an average death-rate of 2·9 per 1000 persons living.

Phthisis,

Four deaths from Phthisis and other tubercular diseases occurred, making an average death-rate of 1·9 per 1000 persons living.

I should like to make Phthisis a notifiable disease so that directions might be given as to the disposal of the sputum, and that houses might be disinfected after the removal or death of the patients. Disinfection is carried out where practicable.

Cancer.

Four deaths from Cancer were registered during the year, making an average death-rate of 1·9 per 1000 persons living.

Measles.

Measles prevailed extensively, but there were no deaths.

Food and Drugs Adulteration.

One sample of Irish Whisky, three of Milk, one of Mustard, one of American Cheese, were analyzed during the year, and all found to be genuine.

One sample of Irish Whisky was found 8 per cent below limit, and a fine was inflicted.

Mortuary.

A public Mortuary exists.

I append Table 1, Vital Statistics of the whole District and previous years.

Table 3, of Infectious Diseases notified during the year.

Table 4, Causes of, and ages at death during the year.

Table 5, Infantile Mortality during the year.

The Sanitary Inspector's Report.

And the Factory and Workshops Report.

I have the honour to remain, Gentlemen,

Your faithful Servant,

HERBERT LUCAS,

*Medical Officer of Health,
Godmanchester Urban District Council.*

Huntingdon, January, 31st, 1906.

SUMMARY OF SANITARY INSPECTOR'S REPORT.

For the Year 1905.

Public Sewers. — Sewer outlet improved, and the sewer in Duck Lane relaid.

No. of Houses Inspected.....	300
No. of Re-Inspections	20
House Drains Improved	6
Yards paved	8
Cowsheds Inspected	7
Lodging Houses Inspected	3
Slaughter Houses Inspected	4
Houses disinfected after illness	30

C. MAYFIELD,
INSPECTOR.

TABLE IV.
Godmanchester Urban District.
Causes of, and Ages at, Death during Year, 1905.

CAUSES OF DEATH.	Deaths in or belonging to whole District at subjoined Ages.						
	All Ages.	Under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and up- wards
1	2	3	4	5	6	7	8
Scarlet Fever	1		1				
Phthisis	2				1	1	
Other tubercular diseases	2		2				
Cancer, malignant disease	4					2	2
Bronchitis	6	2				1	3
Premature birth	1	1					
Heart diseases	3					2	1
Suicides	1				4		
All other causes	14	8	1			2	3
All causes	34	11	4	0	2	8	9

TABLE V.

BOROUGH OF GODMANCHESTER.

INFANTILE MORTALITY DURING THE YEAR 1905.

Deaths from stated Causes in Weeks and Months under One Year of Age.

CAUSE OF DEATH.	All Causes.	Under 1 Week.		1-2 Weeks.		2-3 Weeks.		3-4 Weeks.		Total under 1 Month.		1-2 Months.		2-3 Months.		3-4 Months.		4-5 Months.		5-6 Months.		6-7 Months.		7-8 Months.		8-9 Months.		9-10 Months.		10-11 Months.		11-12 Months.		Total Deaths under One Year,	
		Certified	Uncertified	1	1	2	2	1	2	1	2	1	2	2	1	2	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
Common Infectious Diseases.																																			
All Causes.		7	4	1	2	2	4	1	2	1	2	1	2	2	1	2	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	11	
Common Infectious Diseases.																																			
Small-pox																																			
Chicken-pox.....																																			
Measles																																			
Scarlet Fever																																			
Diphtheria; Croup																																			
Whooping Cough																																			
Diarrhoea, all forms }																																			
Enteritis <i>not Tuberculous</i> }																																			
Gastritis Gas- trointestinal Catarrh																																			
Premature Birth	1																																		1
Congenital Defects }																																			
Injury at Birth																																			
Want of Breast- milk.....																																			
Atrophy, Debility, Marasmus..	2																																		5
Tuberculous Meningitis...																																			
Tuberculous Peritonitis :																																			
Tabes Mes- enterica																																			
Other Tubercu- lous Diseases																																			
Erysipelas																																			
Syphilis																																			
Rickets																																			
Meningitis																																			1
<i>(not Tuberculous)</i>																																			
Convulsions																																			1
Bronchitis																																			2
Laryngitis																																			
Pneumonia.....																																			
Suffocation, overlaying.....																																			
Other causes.....																																			1
TOTALS.....	3	1																																11	

Births in the { legitimate..... 60.
 year illegitimate ... 1. Population
 Deaths from all Causes at all Ages..... 34. Estimated to middle of 1905 } 2017

**Annual Report of the Medical Officer of Health for the year 1905 for the
Urban District of Godmanchester.**

on the administration of the Factory and Workshop Act, 1901, in connection with
FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES, & HOMEWORK.

1.—INSPECTIONS.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Number of		
	Inspections.	Written Notices	Prosecutions.
Factories (Including Factory Laundries)	Nil.	Nil.	Nil.
Workshops (Including Workshop Laundries)	9		
Workplaces	2		
Homeworkers' Premises	Nil.		
Total	11		

2.—DEFECTS FOUND.

Particulars.	Number of Defects.			
	Found.	Remedied.	Referred to H.M. Inspector.	Number of Pros- ecutions.
	Nil.	Nil.	Nil.	Nil.



The Urban District Council of Goole.



Annual Report OF THE Medical Officer of Health,

ALEXANDER M. ERSKINE.

M.D., B.Ch., D.P.H.,

Medical Superintendent of the Fever Hospitals, Deputy Medical Officer of Health Hull and Goole Port Sanitary Authority, Honorary Surgeon Cottage Hospital,

FOR THE YEAR, 1905.



Goole :

"THE GOOLE TIMES" PRINTING AND PUBLISHING CO., LTD.

—
1906.

Names and Addresses of the Councillors.

1905-1906.

EVERATT HIND, J.P., Chairman.

ARTHUR BLYTH, J.P., Vice-Chairman.

North Ward.

E. HIND ...	...	BOOTHFERRY ROAD.
LAMPLEY HOLMES ...	...	HOOK.
GEO. BICKERTON ...	...	CLIFTON GARDENS.

South Ward.

T. ASK ...	...	HENRY STREET.
R. LEGGOTT ...	...	3, KINGSTON STREET.
G. E. HILL ...	...	13, PERCY STREET.

East Ward.

R. H. HUNTINGTON ...	...	NORTH STREET.
W. CHESTER ...	...	HOOK.
F. CHAMBERS ...	...	CLIFTON GARDENS.

West Ward.

A. BLYTH ...	...	BOOTHFERRY ROAD.
T. C. TURTON ...	...	CLIFTON GARDENS.
ED. JACKSON ...	...	THE GABLES.

Central Ward.

W. E. GRAYBURN ...	...	NAVIGATION HOUSE.
J. GOODERIDGE ...	...	AIRE STREET.
J. FAWBERT ...	...	CARLISLE STREET.

Hospital Committee.

Messrs. F. CHAMBERS (Chairman), CHESTER, GRAYBURN, TURTON and JACKSON.

Officials of the Department.

A. M. ERSKINE, M.D. ...	...	Medical Officer of Health
WM. HY. ELLIS ...	...	Inspector.
PERCY STAMPS ...	...	Assistant Inspector.

Sanatorium Staff.

A. M. ERSKINE, M.D. ...	...	Medical Superintendent.
Miss ROSALYN WRIGHT ...	...	Matron.
Miss A. ARNOLD ...	...	Charge Nurse.
Miss M. DODGSON ...	...	Probationer.
Miss B. NETTLETON ...	...	Probationer.

**To the Chairman and Members of the
Goole Urban Council.**

GENTLEMEN,

I have the honour to submit to you my Annual Report for the year ending December 31st, 1905, comprising the statistical returns of the deaths in the town, the measures adopted for the prevention of disease, and the work done in the sanitary department.

You are aware of the views I have expressed and acted upon for the past few years (and are further emphasised in this report) in regard to the difference between the true diphtheria bacillus and the Hofman or pseudo-diphtheritis bacillus, and seeing that our main efforts are directed towards the stamping out of diphtheria in the town, I append the following extracts, which appeared in the March number of "Public Health" after my report had gone to ~~the~~ press. The author is Dr. Hutchens, Demonstrator of Bacteriology at the University of Durham, and formerly bacteriologist at Wakefield.

"It may, therefore, be concluded that the bacillus of Hofman and the bacillus of diphtheria are distinct organisms, that the bacillus of Hofman is innocuous to man, that it is a normal inhabitant of the mouth, especially among the poorer classes, and that no importance whatever should be attached to its presence in the mouth. Further, that diphtheria bacilli are found in the healthy throats of those only who have been in more or less direct contact with actual cases of diphtheria."

"And the reason why we have failed in the past to recognise how diphtheritis spread is because we have failed to recognise that not only patients in the acute stage of the disease, but also (1) infected contacts, who show no clinical signs of the disease ; (2) mild cases which escape notice and cases in which the diagnosis has been wrongly made ; and (3) convalescents discharged before their throats are 'clean' ; all have the power, equally with patients in the acute stage, of spreading the disease."

"As regards drains and insanitary surroundings, which formerly used to be looked upon as a cause of diphtheria, these can now only

be regarded as causes contributing to the lowering of the general health, and so making the individual more susceptible to any infecting agent."

"When a case of diphtheria is discovered it is not sufficient, if the outbreak is to be checked, to send the patient to hospital. This, of course, must be done. But in addition to the removal of the patient to a satisfactory place of isolation, the throats of all persons with whom he has been in contact must be swabbed, in order to find out the infected contacts. And here comes the importance of distinguishing the diphtheria bacillus from the bacillus of Hofman, for if we are going to isolate all those harbouring Hofman's bacillus, about one half of the population will be in quarantine."

I give these extracts because they bear out so emphatically the opinions I have expressed so often, in spite of opposition.

I am, Gentlemen,

Your obedient servant,

A. M. ERSKINE.

92, Boothferry Road,
Goole.

— SUMMARY —
OF
Vital and Mortal Statistics.

Area	...	...	...	...	1,218 acres.
Population at Census, 1901	...	...	...	...	16,576
Estimated Population	...	...	...	...	17,500
Population under 10 years in 1901	...	...	...	...	4,414
Marriages	...	...	153		
Births	...	...	577	rate	33
Deaths	...	...	2953	rate	16·87
Infantile Mortality Rate	...	...	...	...	152
Zymotic Death-rate	...	...	...	...	1·8
Phthisis Death-rate	...	...	...	...	·5
Number of Notifications	...	...	...	...	236
Rateable Value	...	...	...	£	70,213
District Rate	...	...	...	...	3/8
Poor Rate	...	...	...	...	3/4

Vital Statistics for the year 1905

1905.	ENGLAND AND WALES.	Great Towns. (76)	Smaller Towns. (141)	England and Wales less the 217 Towns
BIRTH-RATE	- - -	27·2*	28·2	26·9
DEATH-RATE	- - -	15·2*	15·7	14·4
Zymotic Death-rate	- - -	1·52	1·88	1·50
Infantile Mortality	- - -	128*	140	132
	(per 1,000 births)			113

* Lowest ever Recorded.

Annual Report, 1905.

Physical Features and General Character of the District.

THE district is a perfectly flat one, the town being situated on the River Ouse, just after its junction with the Rivers Aire and Calder. The River Don separates Old Goole from the docks and newer parts of the town. The Aire and Calder canal runs parallel to the River Don, and is the boundary between the South and Central Wards. The docks are situated in the Central Ward, and this ward is separated from the North and West Wards by the North-Eastern Railway lines. The East Ward extends from the station eastwards to the River Ouse.

The subsoil is damp, consisting of alluvial deposit to a depth of five feet, then comes a layer of peat, varying from $1\frac{1}{2}$ feet to 3 feet in thickness, beneath which is a layer of strong clay, capping the gravel, from which in former times the principal water supply of the town was obtained, by means of wells sunk to a depth of 30 feet.

The general level of the town is ten feet above sea level, and the Ouse being a tidal river, its waters are prevented from overflowing by artificially raised banks.

Being a seaport town, the chief occupation of the inhabitants is directly or indirectly associated with shipping, and consists of sailors, dock labourers, clerks, tradespeople, railway servants, and professional men, in addition to which there are shipbuilding yards, repairing yards, chemical works, tillage works, timber yards, flour mills, malt kilns, steam laundry, cabinet works, printing works, and Goole is the centre of a very important agricultural district.

With regard to the progress of the town, the year has been one of activity. The shipbuilding yards have been fully occupied, trade in the main has been good, and building operations have been in progress all over the town, but more particularly in the East Ward, where three new streets have been opened out. In my inspection of the town I find that there are comparatively few unoccupied houses.

Population.

My request that a census be taken of the town during the year did not meet with the approval of the Council. It has been shown in previous intercensal years that the estimated population had been considerably in error. If it be true that statistics may be made to prove anything, it is also true that vital statistics form the basis on which sanitary reforms rest, more particularly with regard to

legislation. A correct estimation of population, then, is our first consideration, for it is on population that all vital statistics rest. In a town like Goole, of varying growth, it is difficult to form a correct estimate. Several methods are available. The Registrar-General's method is based on the assumption that the same rate of increase will hold good as in the previous intercensal period. How faulty this is may be seen by a reference to the 1881 census, in which the enumerated population was 10,418, according to the 1891 census the population was 15,416, and the 1901 census was 16,576. From these figures it will at once be seen that the same rate of increase did not hold good as in the previous intercensal period.

Another method, with very obvious limitations, is to ascertain the number of inhabited houses for the year, and multiply this by the average number of inhabitants in each house, as ascertained at the last census.

The Registrar-General's method is sufficiently correct for an intercensal period where the two census figures are known, and so we obtain the populations as follows:—

Year.					Population.
1881 (Census year)	...	...	...	...	10418
1882	...	...	...	...	10834
1883	...	...	...	...	11267
1884	...	...	...	...	11717
1885	...	...	...	...	12185
1886	...	...	...	...	12673
1887	...	...	...	...	13179
1888	...	...	...	...	13696
1889	...	...	...	...	14254
1890	...	...	...	...	14926
1891 (Census year)	...	...	...	...	15416
1892	...	...	...	...	15528
1893	...	...	...	...	15641
1894	...	...	...	...	15745
1895	...	...	...	...	15870
1896	...	...	...	...	15985
1897	...	...	...	...	16092
1898	...	...	...	...	16219
1899	...	...	...	...	16337
1900	...	...	...	...	16456
1901 (Census year)	...	...	...	...	16576

In Table I. the death rates are corrected according to these figures.

If we adopt the Registrar-General's method the estimated population to the middle of 1905 is 17,095. But if instead of taking only the previous intercensal years we take the preceding two intercensal years, namely, a period of twenty years instead of ten, the

estimated population is 17,879. This would appear a more correct method, and settles the point whether the rate of increase is according to the 1881-1891 decade or the 1891-1901 decade.

If the rate of increase be according to 1881-1891 intercensal period, then the estimated population would be 19,493.

These figures can be checked by the second method, and Mr. Buck has kindly furnished me with the following figures :—

Number of houses in Goole :

North	Ward	...	...	954	houses.
South	„	...	...	1074	„
East	„	...	...	974	„
West	„	...	...	638	„
Central	„	...	...	493	„
<hr/>					
Total				3133	
Empty houses				110	<hr/>
				3023	

And this figure multiplied by the average number of persons per house, as obtained at the last census, *i.e.* 4·6, gives an estimated population of 18,505.

Returning to the figures of 17,095 as obtained by the Registrar-General's method, and believing that the figures 17,879 are more correct as judged by the number of inhabited houses, I have taken a mean, and estimate the population of Goole to the middle of 1903 as 17,500. Last year I was of opinion that I had underestimated the population. The birth rate and death rate in this report are calculated upon this figure.

The natural increase of population, *i.e.*, the preponderance of births over deaths was 273, as compared with 170 in 1904, 294 in 1903, 244 in 1902, and 347 in 1901.

At the 1901 census the proportion of persons per acre was 13·6, and per house 4·6.

The estimated population of the different wards of the town, at the middle of the year was as follows :—North Ward, 4,525 ; South Ward, 4,367 ; East Ward, 3,908 ; West Ward, 2,900 ; Central Ward, 1,800.

In	1821	the	population	of	Goole	was	450
„	1831	„	„	„	„	1671	
„	1841	„	„	„	„	3200	
„	1851	„	„	„	„	4722	
„	1861	„	„	„	„	5850	
„	1871	„	„	„	„	7680	

After which the official census figures are obtained.

Births.

The total number of births notified to me during the year was **577**. The total number registered in 1904 was 567, and the average for the past ten years is 585. The birth rate in 1905 was **33 per thousand** of the estimated population, as compared with 33·9 in 1904, and 36·3 the average for the last ten years. Of the births 295 were males and 282 females. Arranged according to wards, 160 were registered in the North Ward, 152 in the South Ward, 118 in the East Ward, 86 in the West Ward, and 61 in the Central Ward.

Of the total number of births 28 were illegitimate—about five per cent.

The average birth rate for the 141 smaller towns of England and Wales during 1905 was 26·9.

Marriages.

There were 153 marriages solemnized in the town during the year, as compared with 120 in 1904, and 115 in 1903.

Deaths.

The gross total number of deaths registered during the year was 301, giving a death rate of 17·2 per thousand of the estimated population. If the deaths of 11 persons not belonging to the town (non-residents) be deducted, and those of ~~53~~ persons (residents) who died in public institutions outside the district be added, the net total number of deaths was ~~298~~ **3150** males and ~~144~~ females, giving a **net death rate of 16·8 per thousand** of the estimated population.

The death rate for 1904 was 22·4, and the average for the last ten years is 18·5.

The average death rate for the 142 smaller towns of England and Wales during 1904 was 14·4 per thousand living.

The low death rate for the year is a very gratifying fact to record, more particularly as all during the year we had still to contend with cases of diphtheria. On looking back I find that the following years had a similarly low death rate:—1897, when the death rate was 16·0; 1892, 16·6; 1888, 16·0; 1885, 15·0; 1881, 16·0.

Reading through the several reports for these different years, I find no special reason given for the lessened mortality, merely that “it was general over the country as a whole.” No meteorology tables are given with the reports, so that no inferences can be drawn from this source. In my 1903 report I have given a table showing the rainfall at Goole for the previous 25 years, but not the temperature; and I find that for these years there was a remarkable similarity in the annual rainfall, varying only from $24\frac{1}{2}$ inches to $22\frac{1}{4}$ inches.

In our case also the lowered death rate is general all over the country, but comparing Table IV. with the same table for the year 1904, we can at once place our fingers on the diseases in which the diminntion has taken place.

In 1904 there were 45 deaths from measles.

„ 1905	„	0	„	„
„ 1904	„	57	„	diarrhoea.
„ 1905	„	9	„	„

from which it will be seen that the difference from these two causes alone is 93, and at once places the figures for the years on an equality, *i.e.*, 288 and 293. This being so, I will refer to these diseases later in my report, as they are both preventable diseases. On the other hand, in comparing the year 1904 with 1905, an increase in deaths from scarlet fever and whooping cough has taken place, and the same remark applies to diphtheria, whilst there have been 12 less deaths from tubercular disease during 1905 as compared with 1904. The other figures scarcely call for special comment, but the foregoing diseases come under the category of efficient sanitary administration. It will be noticed that the Local Government Board have added another table, *i.e.*, Table V., analysing the causes of the deaths of children under one year. The total number of deaths under one year was 88 ; as compared with 151 in 1904, and an average of 96 for the past ten years. This great saving of infant life must be regarded by the members of the Council with satisfaction, although we need not flatter ourselves that the cause is due directly to our efforts.

Local Government Board's Tables.

In the five tables which follow, deaths occurring in public institutions are allotted to the different wards, or other localities, according to the addresses of the deceased. In the case of the Union, which is situated in the North Ward, however, this has not always been possible, as no previous address has been given. Also in the case of the Cottage Hospital, situated in the Central Ward, where no previous address can be found, several deaths have been allotted here, as well as cases of drowning, etc., of unknown strangers.

It will be observed that deaths of non-residents are excluded from certain calculations, and deaths of residents are included, according to the instructions of the Local Government Board. The Board defines non-residents as persons brought into the district on account of illness, and dying there, and residents as persons who have been taken out of the district on account of illness and have died elsewhere. The list of institutions furnishing such returns were the Hull Royal Infirmary and the West Riding Lunatic Asylums.

TABLE I.

VITAL STATISTICS DURING 1905 AND PREVIOUS YEARS IN
THE URBAN DISTRICT OF GOOLE.

Year.	Population estimated to Middle of each year.	BIRTHS.		DEATHS UNDER ONE YEAR OF AGE.		DEATHS AT ALL AGES. TOTAL.		Deaths in Public Institutions.		DEATHS AT ALL AGES. NET.	
		Number.	Rate.*	Number.	Rate per 1000 Births registered.	Number.	Rate.*	Deaths of Non-Residents registered in District.	Deaths of Residents regis- tered beyond District.	Number.	Rate.*
1895 ..	15870	619	39·0	99	161	327	20·6	31	6	321	20·2
1896 ..	15985	635	39·7	96	151	288	18·0	34	11	277	17·3
1897 ..	16092	574	35·6	96	167	271	16·8	27	13	258	16·0
1898 ..	16219	581	35·8	98	167	300	19·1	40	18	284	17·5
1899 ..	16337	606	37·0	119	196	351	21·4	39	20	333	20·3
1900 ..	16456	580	35·2	76	131	299	18·1	48	13	289	17·5
1901 ..	16576	642	38·7	95	145	295	17·6	20	9	293	17·6
1902 ..	16723	563	33·6	106	188	319	19·0	31	9	313	18·8
1903 ..	16850	594	35·2	89	149	300	17·8	45	8	295	17·5
1904 ..	17000	567	33·9	151	266	397	23·3	47	16	381	22·4
Av'grees '95-1904)	16410	596	36·3	1·2	172	314	19·1	37	12	304	18·5
1905 ..	17500	577	33·0	88	152	301	17·2	31	11	295	16·9

293.16.9.

* Rates calculated per 1,000 of estimated population.

Area of District in acres (exclusive of area covered by water) .. 1,218 Acres.

Total population at all ages 16,576

Number of inhabited houses 3,528 } At
Census of
1901.

Average number of persons per house 4·68

TABLE II.

TABLE SHOWING CERTAIN MORTALITY STATISTICS, CLASSIFIED ACCORDING TO WARDS,
IN THE URBAN DISTRICT OF GOOLE FOR THE YEARS 1901-1905.

NAMES OF LOCALITIES	NORTH.	SOUTH.	EAST.	WEST.	CENTRAL.		Deaths under 1 year.
					Births registered.	Deaths at all ages.	
Year.					Population estimated to middle of each year.	Deaths under 1 year.	
1901 ..	4354	177	77	26	4100	170	74
1902 ..	4388	148	86	21	4165	179	84
1903 ..	4410	154	71	18	4200	175	95
1904 ..	4410	153	96	44	4244	144	111
1905 ..	45 5	160	62	18	4367	152	97
					29	3908	118
						642	293
						16,76	95
						TOTALS IN WHOLE DISTRICT	
						1901	
						1902	
						1903	
						1904	
						1905	
						do.	
						do.	
						do.	
						do.	
						do.	

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TABLE III.

ABLE SHOWING NEW CASES OF INFECTIOUS SICKNESS, COMING
TO THE KNOWLEDGE OF THE MEDICAL OFFICER OF HEALTH
DURING THE YEAR 1905, IN THE GOOLE URBAN DISTRICT,
CLASSIFIED ACCORDING TO DISEASES, AGES, AND LOCALITIES.

Notifiable Disease.	Cases Notified in Whole District.										Total Cases Notified in Each Ward.		No. of Cases Removed to Hospital from Each Ward.				
	At all ages.		Under 1.		1 to 5.		5 to 15.		15 to 25.		25 to 65.		65 and upwards.				
	North.	South.	East.	West.	Central.	North.	South.	East.	West.	Central.	North.	South.	East.	West.	Central.	Rural.	
Small Pox . . .	1	..	..	..	1	..	..	..	..	1	..	..	..	..	1	..
Cholera . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria . . .	150	..	34	91	16	9	..	..	..	..	103	8	10	19	6	3
Membranous Croup . . .	4	..	3	1	..	..	..	..	..	2	1	1	..	..	..	..
Erysipelas . . .	18	..	2	..	1	11	4	5	4	6	2	1	..	..	..	..
Scarlet Fever . . .	50	..	10	35	1	3	1	19	15	5	7	4	13	4	2	2	
Typhus Fever . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever . . .	10	..	..	..	5	4	1	..	..	3	1	2	..	..	..	1
Relapsing Fever . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever . . .	3	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Plague . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles . . .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Totals . . .	236	..	49	132	25	25	5	40	124	23	19	30	25	111	11	7	

TABLE IV.

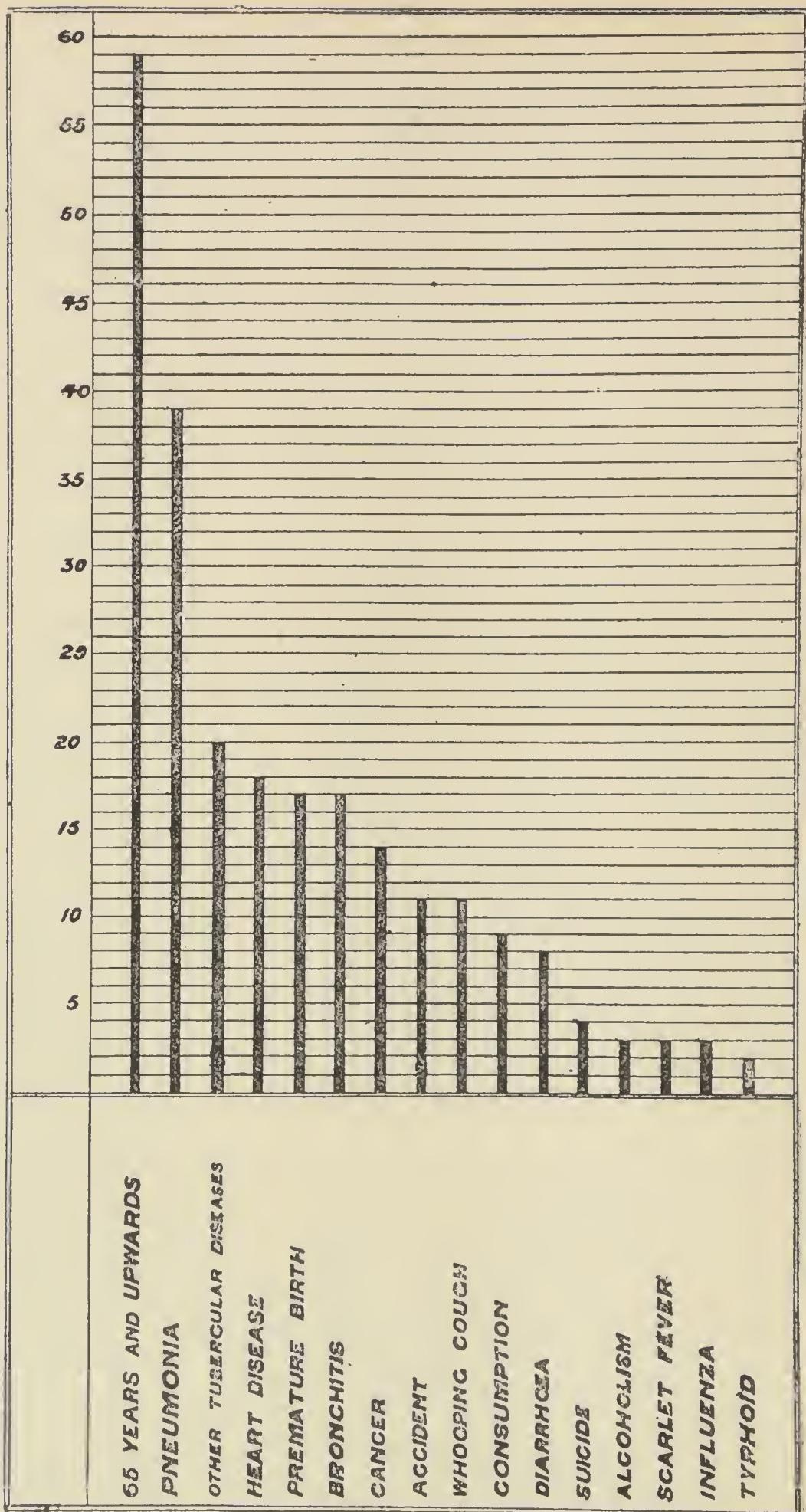
CAUSES OF, AND AGES AT, DEATH DURING YEAR 1905

CAUSES OF DEATH.	DEATHS IN WHOLE DISTRICT AT SUBJUNIOR AGES.										DEATHS IN WARDS (ALL AGES).									
	All Ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 35.	35 and under 45.	45 and upwards	North.	South.	East.	West.	Central.	Deals in Public Institutions.						
Small-pox
Measles
Scarlet Fever
Whooping Cough
Diphtheria and Membranous Croup
Croup
Typhus
Fever
Enteric
Other Continued
Epidemic Influenza
Cholera
Plague
Diarrhoea
Enteritis
Puerperal Fever
Erysipelas
Other Septic Diseases
Phthisis
Other Tubercular Diseases
Cancer, Malignant Disease
Bronchitis
Pneumonia
Pleurisy
Other Diseases of Respiratory Organs
Alcoholism, Cirrhosis of Liver
Venereal Diseases
Premature Birth
Diseases and Accidents of Parturition
Heart Diseases
Accidents
Suicides
All other causes
All causes	293	88	29	23	17	77	59	62	97	64	84	56	31	31	31	31	31	31	31	31

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BIRTHS, DEATHS, AND NOTIFICATIONS IN EACH WARD.

1905.		NORTH WARD.		SOUTH WARD.		EAST WARD.		WEST WARD.		CENTRAL WARD.	
		Births.	Deaths.	Births.	Deaths.	Births.	Deaths.	Births.	Deaths.	Births.	Deaths.
January	...	16	7	13	5	5	4	10	6	1	1
February	...	11	10	19	9	9	5	13	6	5	2
March	...	20	5	17	3	28	9	18	0	6	3
April	...	8	3	11	9	11	6	14	3	4	10
May	...	17	4	9	7	11	9	6	3	2	9
June	...	11	6	16	6	16	6	3	4	1	2
July	...	6	3	11	3	18	6	8	4	1	5
August	...	12	4	13	2	16	8	7	3	0	0
September	...	20	3	12	3	10	7	9	1	5	0
October	...	19	4	16	9	16	7	7	4	1	1
November	...	8	3	7	3	7	3	3	3	0	0
December	...	12	6	8	4	6	3	8	4	5	3



Deaths 1905.

TABLE V.

Infantile Mortality during the Year 1905.

DEATHS FROM STATED CAUSES IN WEEKS AND MONTHS UNDER ONE YEAR OF AGE.

Inquests.

Twenty-two inquests were held during the year. Of these deaths 7 were due to natural causes, 4 were suicides, 3 were due to burns, 3 were due to drowning, 3 were accidents, and 2 were due to alcoholism.

Infantile Mortality.

The total number of deaths under one year of age was **88, or 152 per thousand births** or 30 per cent. of the nett total number of deaths at all ages. These figures compare with 151 and 266 in 1904, and an average of 102 and 172 for the past ten years. The infantile mortality figure per thousand births in the 142 smaller towns of England and Wales during 1905 was 132. Being able to record so low a figure affords me considerable satisfaction, although the abnormally high figure for 1904 makes the contrast too great a one, yet it compares very favourably with the figures for many years back.

Public attention in recent years has been attracted to the question of the continuous high death rate amongst children, whilst the general death rate has been gradually lowered, and the opinion is entertained that the comparative figure per thousand births should be under 100, so that we still fall considerably short of this number. The Local Government Board have given expression to this opinion by issuing the table on page 17, which when filled up enables us to see the different causes of death. The Chief Medical Officer states that "Table V. affords opportunity for record in detail of facts as to infant mortality. It is well known that in many parts of this country the infantile death rate remains unduly high, that it differs widely in districts the circumstances of which are not definitely dissimilar, and that within the limits of a given sanitary area the death rate may exhibit striking diversities. A table of the sort now prepared permits record, in regard of each sanitary district as a whole, of certain facts as to infant mortality in each of the several weeks of the first month of life, and in subsequent months, facts which, when accumulated for a series of years, may prove of definite value in instituting comparisons such as have been referred to."

Somewhere I have read that "It may be found possible to make the care of the infants a lever to a higher conception of life."

These 88 deaths were distributed as follows:—18 in the North Ward; 29 in the South Ward; 14 in the East Ward; 13 in the West Ward; 14 in the Central Ward; and arranged according to the number of births in each ward, giving the comparative mortality figure, the figures obtained are:—

North Ward	...	112 per 1,000 births.
South Ward	...	190 ,,
East Ward	...	118 ,,
West Ward	...	151 ,,
Central Ward	...	229 ,,

so that the greatest mortality took place in the Central and South Wards.

The high death rate (22·4) for 1904 was due to the large number of deaths amongst children, and I have already stated that the low death rate for the year 1905 was due to the lessened number of deaths amongst infants. The figures are 151 in 1904 and 88 in 1905, and I have further pointed out that in 1904 there were 45 deaths from measles, and in 1905 no deaths from this disease ; and in 1904 57 deaths from diarrhoea, and in 1905 9 deaths, so that at once we have a difference of 93 deaths in the two years. It behoves us, therefore, to consider our position with regard to these two diseases, more especially as they are both preventable, although not notifiable.

Measles.

Looking through former Annual Reports, the record of deaths from measles appears periodically. In the November number of "Public Health" Dr. Wilson writes a most valuable article on this disease, giving the result of the notification of measles in Aberdeen, one of the few towns in which the compulsory notification of measles has been tried. He states that "Measles is probably the most universal of human zymotics in this country, and the total number of deaths in the course of years is so great as to demand for the disease a foremost place in the consideration of hygienists and of the community. . . . In Aberdeen, within the last ten years, measles caused more deaths than any other single zymotic, and even more than all the other zymotics taken together, if whooping cough be excluded. . . . The epidemic periodicity in Aberdeen is chiefly biennial, though sometimes triennial. . . . There is no evidence of the epidemicity being determined by atmospheric or similarly widespread conditions. It is probably determined for the most part by the accumulation of susceptible material."

It will be remembered that after the terrible waste of life from measles in 1904, the Goole Council petitioned the County Council to appoint a local medical inspector of schools, to which they did not agree, but later on appointed their county medical officer to act as inspector of all the schools in their wide area. So far as we are concerned, I am unable to see how this appointment will aid us in the early detection of cases of infectious disease amongst school children, more especially measles. Personally, I dread an outbreak of measles more than scarlet fever, and it is only by dealing effectively and promptly with the earlier cases that an epidemic can be prevented.

At the annual meeting of the Urban District Councils' Conference, held at the Guildhall, London, 1906, the following resolution was passed unanimously :—"That in the opinion of this Conference it is expedient and desirable in the interests of public health local medical inspectors should be appointed to make periodical visits of inspection of school children attending elementary schools in their district, so as to enable such officers to obtain early information concerning the presence of infectious diseases amongst school children, and that this duty should devolve upon the Medical Officer of Health appointed for the Urban District."

If no such action be taken then there seems small hope of reducing the large number of deaths from this disease, as we must expect another epidemic within the next year or two.

Summer Diarrhoea.

The Registrar-General now appoints the local registrars to send to Medical Officers of Health returns containing particulars of each birth registered in their district. In order to utilise this information towards the prevention of disease, handbills were printed by order of the Health Committee on the rearing of infants, and were distributed to the mother of every child registered in the town during 1905. We can only surmise that these were of some help. At no period of the summer of 1905 were cases of diarrhoea numerous.

A reference to the meteorology table for the year reveals the fact that we had a small total rainfall, 20·80 inches, and the highest recorded temperature was 73 degrees Farenheit, in July only. The maximum temperature in June, July, and August was 69 degrees, 73 degrees, and 65 degrees, whereas in 1904 the maximum temperature for these months was 80 degrees, 85 degrees, and 92 degrees. We have no four-foot earth thermometer, but at any rate we never had any very warm weather during the summer, whilst we had a marked absence of rain.

The evidence in favour of flies playing an important part in the propagation of the pollution of milk and other foods increases. The summer of 1905 was noted for a marked absence of flies, in contrast with a pestilence during 1904. In a box closet town like ours, this probable causation becomes of importance. I am not of the opinion that poverty is a factor of great importance in the causation of this disease, only in so far that improper feeding of infants takes place largely amongst the poor. I have gone into this aspect of the question in my last year's report. From an administrative point of view our difficulty lies with the milk supply. A pure milk supply in a town like Coole, with a large proportion of children, is of as much importance as a pure water supply. And of equal importance is the part played by the consumers themselves preventing contamination of the milk after it has reached their homes. We can only point this out. It remains with them whether they act upon the advice or not.

During the year I visited several milk farms in different parts of the country. The Council generously sent me as their representative to the London Congress of the Royal Institute of Public Health, and whilst there I took the opportunity of visiting the milk depot at Battersea and the Walker-Gordon laboratories and farm at Wembley, both of which are outside the scope of practical administration so far as Goole is concerned. Of much greater interest to me was a visit I paid to Mr. Sorensen's farm at York, and observing also the progress that is being made with a society formed at Northallerton, in connection with the North-Eastern Railway, to supply bottled milk (to towns in the North of England) which has been received from farmers in Wensley Dale. I cannot do better than state the essentials of their scheme.

I.—The formation of a society to select good milk and secure clean conditions of conveyance.

II.—To make arrangements with certain farmers in Wensleydale to provide the society with all the milk they produce, under certain strict rules as to sanitation and clean milking.

III.—To provide a bottling dépôt at Northallerton, and to require the farmers to have the milk cooled and despatched to Northallerton for bottling.

IV.—The dépôt at Northallerton, in addition to bottling the milk, to have it re-filtered and cooled down to 40 deg. Farenheit or thereabouts, keeping it at that temperature in a refrigerated atmosphere until its despatch by train to destination.

The promoters add :

I.—That from a national health point of view the supplies of milk for our towns need much improvement both in regard to quantity and quality.

II.—That a real danger exists in our present defective methods of production and system of distribution.

III.—That any comparison of English practice in regard to the supply and distribution of milk, with the more enlightened systems of production and distribution which prevail abroad, tells considerably to our national discredit.

I have given these particulars for the benefit of members of the Council because they agree with my own views. Goole does not require a dépôt for the purpose of sterilizing milk. The increased mortality in 1904 was due to the increased deaths from summer diarrhœa in consequence of the hot dry summer of that year. The years 1902, 1903 and 1905 had relatively cold summers with low infant mortality, so that an increased infantile mortality is to be looked for during every hot dry summer, and this is largely due to contamination of the milk supply. The question for our consideration is how to avoid it. I might state that during last summer I obtained from the Board of Agriculture leaflets on "Cleanliness in the Dairy," and distributed them amongst all the milk dealers in the town and

district. I brought a scheme before the Council with the idea of the production of a medically certified milk. This, however, did not meet with approval.

Briefly the points to be remembered in regard to a milk supply are :—

- (1) Healthy cows, with wholesome feeding and pure water to drink.
- (2) Cleanliness throughout all the processes of production.
- (3) The milk should be filtered, and in hot weather cooled.
- (4) Care should be exercised in the distribution of the milk as to its being kept cool and protected from dust, etc.
- (5) Extreme carefulness on the part of the consumer, so that the milk jug is covered over and kept in a cool place.

I believe I may record that an improvement has taken place amongst the milk sellers in the town. Without in any way interfering with the ordinary milk purveyors, an opportunity presents itself for someone with a little capital at command, to start a farm on the lines of Mr. Sorensen's at Goole, and supply milk to the consumer in sealed jars. As a commercial undertaking this would prove a success. With the advent of the hot weather the Council could then make arrangements with this farm to take a supply of milk, and without attempting to make a profit sell it to anyone requiring it for infant feeding, and if they were very poor it might be sold even at a reduced price. This process could be supervised by the Health Department, and the cost would be infinitesimal.

Of course this is a very rough outline, but it is worth serious consideration. Indirectly also much good might be effected towards saving life, as information would be received as to the presence of sickness, and advice given by means of leaflets or otherwise as to what should be done in the particular case. Fortunately mothers are, as a rule, anxious to do all that is possible for their infants, and will take advice on the subject.

The plan adopted by the city of Rochester, according to "The Lancet," is as follows :

"A central station at which the milk is prepared is organised each season on a farm outside the city, where a trained nurse and assistants have full control of the cows, utensils, bottles, etc., and where all of the milk work is carried on in a portable milk laboratory. Everything coming in contact with the milk is thoroughly sterilised in steam sterilisers. The milk itself is not subject to any pasteurising or sterilising process. Sterilising and pasteurising are only an open invitation to the milkman to be careless in the production and handling of milk. At the milk station on the farm the milk is taken from clean, well fed, tested cattle into sterile cans, which are carried to the barn in sterile cheese-cloth bags. Just before milking the cows' udders are washed. A sterilised cheese-cloth fly cover is placed over the cow, the first portion of the milk being rejected. So soon as the cans are filled they are immediately covered by a layer of cheese-cloth held in position by a rubber band. The cans of milk thus covered are immediately taken from the barn into the laboratory,

about 200 yards away, where the milk is properly diluted, sweetened, and turned off into sterile nursing bottles of various sizes of the Siebert type. The bottles are corked with sterile rubber corks, placed in racks, covered with cracked ice, and immediately transferred to the city for use. Of the cleanliness of milk prepared in this way, 43 daily samples were found to average not more than 14,000 bacteria per cubic centimetre, while the city milk for the same period approximated 235,000 bacteria per cubic centimetre. We now learn that the cost of distributing the milk and, what is far better and more important, of spreading abroad some knowledge of the care and feeding of infant has averaged less than £180 per annum. It is a pity therefore that any hesitation to carry out the supply of milk on strictly hygienic principles is shown, for, as a matter of fact, the cost, whether maintained by public or private enterprise, need not be great, and in any case the results are calculated to afford a very ample compensation in the prevention of infant mortality."

Reviewing briefly some of the other figures in Table V., one is at once struck with the large number of deaths from pneumonia, especially as some of us think that this disease can in a great measure be prevented. Whooping cough claims six deaths, tubercular diseases eight deaths, and wasting diseases eight deaths, in all of which a saving of life might be effected.

Infectious Diseases.

Return of the number of Infectious Diseases notified to the Medical Officer of Health during the year 1905, and of the deaths from the diseases notified :—

Notifiable Diseases.			Cases notified.		Deaths registered.
Small Pox	...	...	...	1	—
Diphtheria and	...	...	150	154	8
Croup	...	...	4	154	
Erysipelas	...	...	...	18	1
Scarlet Fever	...	...	...	50	3
Enteric Fever	...	...	...	10	2
Puerperal Fever	...	...	...	3	3
			—	—	—
Not notifiable.			236		17
Whooping Cough	...	...	...	...	11
Diarrhoea	...	...	...	...	9
Influenza	...	...	...	...	3
			—	—	—
Total			...	...	40

Giving a zymotic death rate (the death rate from the seven principal zymotic diseases, namely, small pox, measles, scarlet fever, diphtheria, whooping cough, "fever" and diarrhoea) of 18. Last year this rate was 6·5, largely due to the cases of summer diarrhoea.

The zymotic death rate for the 141 smaller towns in England and Wales during 1905 was 1·50.

Small Pox.

Only one case of small pox was notified during the year; that of a dock labourer living in the Central Ward. He was promptly removed to hospital, and the utmost care taken in efficiently disinfecting every possible source of infection. No further case arose.

Supplementary return for year ending 1st Jan. to 31st Dec., 1904.

Births registered...	...	...	603	
Successfully Vaccinated	...	...	...	505
Insusceptible of Vaccination	...	...	...	4
Conscientious objections	...	...	...	3
Dead, unvaccinated	...	...	...	90
Postponed by Medical Certificate	...	..	1	
			—	—
			603	

Vaccination return for the period 1st January to June 30th, 1905.

Births registered...	...	...	336
Successfully Vaccinated	...	...	301
Insusceptible of Vaccination	...	...	—
Had Small Pox ...	...	...	—
Certificates of Conscientious Objection	...	...	5
Dead, unvaccinated	...	...	25
Postponed by Medical Certificate	...	...	2
Removal to districts, the Vaccination Officer of which has been apprised ...	...	...	2
Removed to places unknown, not found	...	...	1
Number of cases remaining on the 31st January not accounted for ...	...	...	—
			336

Conscientious objection certificates received during the year
1905 7

Total number of Certificates of successful Primary Vaccination
received during the calendar year 1905 548

J. T. ROBINSON,

6th February, 1906.

Vaccinating Officer, GOOLE.

Diphtheria.

The report under this heading should be read as continuous
with reports under diphtheria in former Annual Reports.

The last case notified in December, 1904, was on the 13th in
the South Ward, where the disease had been epidemic amongst
children attending the Old Goole Board School.

During January, 1905, we had 8 cases notified in different parts
of the town.

Then the disease broke out again amongst the children attending
Old Goole Board School, and extended to the children attending the
Roman Catholic School—all in the South Ward.

17	Cases were notified in	February.
31	„ „ „	March.
27	„ „ „	April.
9	„ „ „	May.
2	„ „ „	June.
17	„ „ „	July.
20	„ „ „	August.
9	„ „ „	September.
3	„ „ „	October.

Which terminated the notifications from diphtheria in the South
Ward.

In November we had two notifications from 10, Richard Cooper
Street, one a child aged 2, and the other a servant aged 15; and on
looking up the records I find a case was removed from the house in

November, 1902, and two of the servant's sisters were removed from their home in the South Ward in February, 1905. From this source also a neighbour's child doubtless received the infection. Of the remaining seven cases notified in December, two were notified from 40, Fourth Avenue, along with a sister suffering from scarlet fever. The fourth case was notified from 44, Marlborough Avenue, and the next was a girl, an out-patient at the Cottage Hospital, whose home address was 18, Alexandra Street. In all of these districts there had been previous cases. The next case is that of the Assistant Sanitary Inspector, who after three years working amongst the disease, developed it after disinfecting some clothing belonging to a patient. The last case was notified from Boothferry Road, which is a new house in the West Ward where the epidemic began. The tenants have only lived in Goole I think about 2 years, and the history is given of the father and another child having a febrile illness with sore throat.

The total number of cases of diphtheria and membranous croup notified during the year was 154, of which number 141 were removed to the sanatorium, 97 of which were in the South Ward and 16 in the Central Ward.

There were eight deaths, just over 5 per cent; even a smaller death rate than at the beginning of the epidemic.

154 might seem a large number of cases, but is only in accordance with the history of the disease in other towns.

My experience confirms me in the opinion I have expressed on former occasions, that the pseudo-diphtheria bacillus can not be regarded as giving rise to diphtheria, and I have disregarded its presence when discharging a patient, although the bacteriological return indicated its existence. A reference to my note book proves that this was the right course to adopt, not in an isolated instance, but in every instance. Repeatedly have we had returns from the laboratory stating that the diphtheria bacillus was found, but that its character was that of the pseudo-diphtheritic variety. In every such case we have discharged the patient, and I have watched these cases carefully afterwards, and in not a single instance have I found a second case of diphtheria to arise from this source. This is not the opinion entertained by all medical men, but at the Leicester meeting of the British Medical Association, in 1905, Dr. Williams read a paper in which he stated that "notwithstanding the oft-quoted evidence of Salter, Trumpp, and of Hewlett and Knight, I think the weight of evidence is against its having any clinical import whatever." Dr. Jacob also states "that the pseudo-diphtheria bacillus was as normal an inhabitant of the naso-pharynx as was the bacillus coli of the large intestine." Whatever bacteriologists may say, these at any rate are clinical facts.

Another question I have been asked is the following: Should a "contact" having no clinical symptoms or signs, but having virulent bacilli in his throat be notified, and so come under the 125th section

of the Public Health Act? My answer is No! It is quite sufficient to gargle or spray his throat, and it would be wise that he should be isolated, and avoid young children of the susceptible age.

There seems to be a connection between the outbreak of cases of diphtheria and climatic conditions, more especially rainfall. I refer to the endemic cases, not to the epidemic cases amongst school children, where one can at once trace personal contact. What this connection is I am unable to formulate. But I did observe twice at least during last year, when the land drains in the neighbourhood were empty we had very few cases of the disease, and then after a rainfall of some duration, *i.e.* when the ground water had risen, cases were notified in different parts of the town. We know there is some connection between dampness of soil and diphtheria, and seeing that our subsoil is a naturally damp one, it offers a favourable nidus for the diphtheria bacillus. Having in view the fact that diphtheria is now epidemic in the town, my observations during the past year incline me to the view that with the rise of ground water cases of diphtheria arise. Further than this I am at present unable to go, yet in my own mind a "prima facie" case is made out, and I find on reference to a meteorological table for 1901—the year in which the epidemic began—that the total rainfall was 21·44 inches, and that up to September, the month in which the first cases began there was a small rainfall—average about $1\frac{1}{4}$ inches monthly. The latter part of the month of September was wet, and this continued as follows: Oct., 2·01 inches; Nov., 3·01 inches; Dec., 4·23 inches; or nearly half the rainfall for the year. Coupled with this is the fact of the increased incidence of diphtheria during the colder months of the first and fourth quarters of the year, compared with that in the warmer second and third quarters.

Dr. Newsholme thinks the specific micro-organism of diphtheria has a double cycle of existence; one phase passed in the soil, another in the human organism. Sir Richard Thorne Thorne held that soil, and especially surface soil, plays a part in the maintenance and diffusion of diphtheria.

In previous reports I have expressed the opinion that dampness played an important part in diphtheria outbreaks, and that in my inspections one of the commonest conditions I found was a condition of dampness in and around the houses in Goole. This leads us on to another condition we found at the beginning of the epidemic, namely, that it began in the North and West Wards where the houses were newly built on agricultural land. The lesson this teaches us then is that, given the specific micro-organism, a pollution of the soil is only required to be added to the dampness of houses, and we have the conditions requisite for an outburst of diphtheria. Hence the importance of the greatest care being exercised in the supervision of the erection of new houses and seeing that (1) the whole ground surface is covered with a layer of good cement concrete, (2) a proper damp course is.

provided. This is only a reiteration of the opinion I expressed in my 1903 Report.

A few extracts from my ordinary monthly reports will illustrate the other aspect of the question, namely, how diphtheria is spread by *personal* infection.

During the month of June eight cases of the disease were notified, all isolated cases; but in the South Ward these have left their trail, as 17 notifications were received in February, and 12 more up to the 8th March, all in the South Ward.

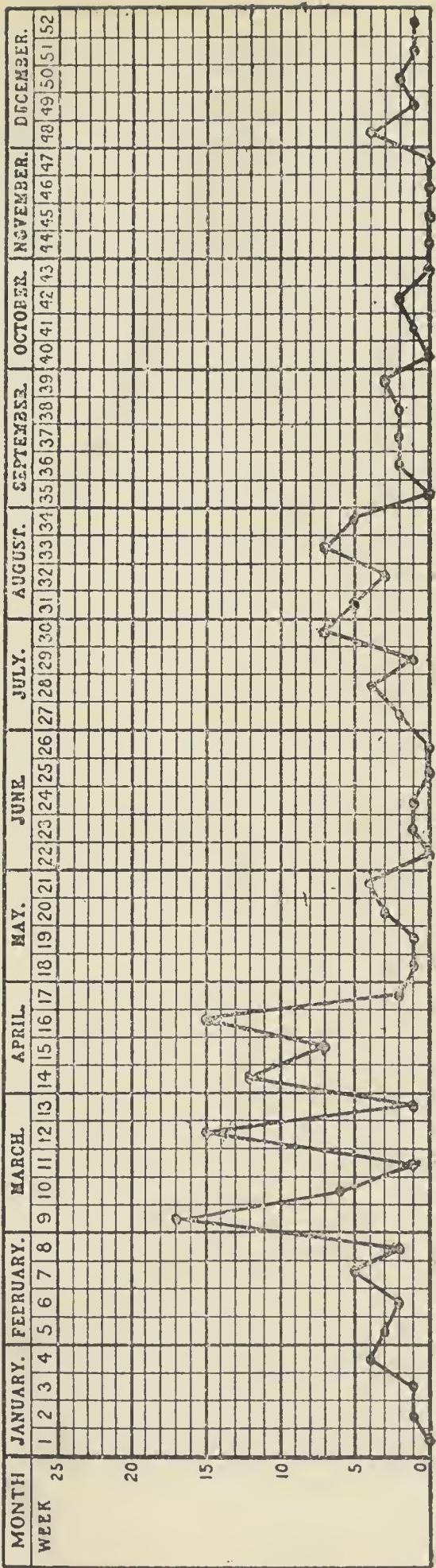
The first of this series was that of an unrecognised case in a school boy attending the Old Goole Board School. His attack was so slight that a doctor was not called in at the beginning of his illness. He was notified, however, on the 30th January, and a second notification was received on the 31st. Our next case was a boy attending the Roman Catholic School in Old Goole, and all the remaining cases have been in children attending these schools.

On the 28th February I took Dr. Millburn round to the different schools and to the houses from which patients had been removed, and he took swabs from as many "contacts" as possible. This accounts for the increase of notifications at the beginning of March, the last of these being received on the 4th inst. Then on the 6th, 7th and 8th, four more notifications were received, all from previously infected houses.

The remaining cases for March were grouped round three centres: (1) Foundry Lane, (2) Kingston Street, and (3) Couper Street. In one house in Foundry Lane all the children (five) except the baby, developed the disease, and one died. Four neighbours' children became infected from this source.

From May 25th to July 5th no notifications were received, after which 32 were received up to August 18th, all in Old Goole, in George Street and Couper Street, and the cases occurred in yards belonging to back-to-back houses, with neighbours going backwards and forwards. Great difficulty was experienced in thoroughly disinfecting the houses, as there was only one living room and two bedrooms. Most of the houses contained several children, and indeed it was often difficult to find out to which particular house they belonged, as they were met in several houses in a very short space of time. Under such conditions it is not difficult to imagine how the disease spread. It was rather remarkable that during the same period there were odd cases notified in different parts of the town, but these did not give rise to secondary cases.

Chart showing the weekly number of Cases of Diphtheria Notified during the year.



Scarlet Fever.

Fifty cases of scarlet fever were notified during the year, with three deaths. The cases occurred mainly in the North and South Wards.

Whooping Cough.

Whooping cough was very prevalent during the early part of the year, and was responsible for 11 deaths, more than the total number of deaths from any of the other infectious diseases. The same difficulty meets us in dealing with this disease as in the case of measles, and for practical purposes the same remarks apply. Both are non-notifiable, although very infectious and occurring amongst children, and presumably because there are no penalties mothers do not take the same precautions in regard to isolation. Again, I can only suggest the appointment of a local medical officer under the Education Department.

Enteric Fever.

Ten notifications were received during the year, and two deaths were registered as due to this disease. The majority were mild attacks, and enquiries made led to the opinion that infection had been received out of the town. In one of the cases, that of a keelman who resided at the rear of 115, Lower Bridge Street, and who was brought home ill, the probabilities were that the infection of the next case—that of a child aged five years living in the same yard—was received from him. This child died, and the other death was that of a former Goole resident notified to us as occurring in a West Riding Asylum.

Phthisis.

There were nine deaths from phthisis or pulmonary tuberculosis, and 20 from other tubercular diseases, giving a death rate from the diseases caused by tubercle of 1·6, as against 2·4 in 1904, and from consumption of the lungs .5, as against .8 in 1904.

Cancer.

Fourteen deaths were registered under this heading, as against 6 in 1904; 25 in 1903, 12 in 1902, 7 in 1901, and 16 in 1900.

House Accommodation.

During the year there has been a good demand for houses, and at the present time there are comparatively few empty houses in the town. Red Lion Row, parts of Edinburgh Street and Mason Terrace, and one house in Jerry Lane, have been permanently closed. There are other houses, mainly in the Aire and Calder estate, which cannot be described as satisfactory.

There has been observed a lessened tendency towards the erection of wooden houses, such as hen-houses, etc., at the rear of dwellings, and Mr. Ellis reports the gratifying fact that at the end of the year there were no pigs being kept contrary to the bye-laws.

I am glad also to record that the back street improvement continues. The only objection I have heard expressed was that the cost was so excessive. I am able to offer no opinion on this point. Experience proves that asphalting in Goole does not turn out a success, so I think the Council are wise in adopting scoria brick instead. Back Jackson Street is a credit to any town, and merits every praise.

121 new houses have been built during the year. During my term of office the practice of sending plans to our office for inspection had fallen into abeyance. This has now been remedied, and if our opinion be not asked in regard to the sanitary and general arrangements of proposed houses, we will at least be able to observe and note the position of the house drains, which will be of use in the future in the event of a nuisance arising.

The nuisance at Fifth Avenue, where the Council have a tip for road-scrapings, still continues.

No action has been taken under the Housing of the Working Classes Act.

Sewerage and Drainage.

For present needs the sewers of the town are sufficient, but a very short time will elapse ere the consideration of the sewerage in the East, North and West Wards will require consideration. In the East Ward, where building operations are now in progress, a new outfall is required,

A nuisance at present exists in regard to the sewerage of Potter Grange Farm, and its solution is a matter of difficulty. The subject is at present under discussion.

The Surveyor reports the conditions of sewers and house drains as satisfactory.

The sewage is discharged untreated into the tidal river, and the box-closets are emptied by contractors and removed to special sites which have been inspected and approved by the Council.

During the past year was inaugurated the system of keeping dry and wet house refuse separate. The former is removed weekly by public scavengers.

Water Supply.

The Pollington augmentation scheme was completed about the end of the year 1904, and the trial pumping at that time yielded 433,034 gallons per diem. The Engineer informs me that throughout the whole year the level of the water in the well has been practically constant, which is a very satisfactory result indeed. During the year the average consumption of water has been 426,027 gallons per diem, equal to 24.3 gallons per head per day of a population of 17,500.

I append the following analyses of the water by Mr. Allen :

I.—MAY, 1899.

Physical characters :

Suspended matter—Small amount.

Appearance of a column two feet long—Slightly cloudy.

Taste—Normal.

Odour—None.

On analysis the sample gave the following results :

Total solid matter, 19·46 grains per gallon, which lost on ignition
6·58 grains.

Chlorine, 1·30 grains per gallon ; equal to sodium chloride 2·13
grains.

Nitrogen in oxidised form, 0·47 grains per gallon ; equal to
nitric acid 1·81 grains.

Poisonous metals—None.

Degrees of hardness, 9·0 parts per million ; equal to grains of
chalk per gallon.

Reducing power, 0·39 parts per million ; representing the oxygen
absorbed.

Free ammonia, 0·03 parts per million.

Albuminoid ammonia, 0·08 parts per million.

The following are the proportions of saline matters :

Silica, alumina, and oxide of iron ...	0·96	grains per gallon.
--	------	--------------------

Calcium carbonate ...	3·90	"
-----------------------	------	---

Calcium sulphate ...	2·70	"
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Magnesium sulphate ...	1·94	"
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Magnesium nitrate ...	2·40	"
-----------------------	------	---

Sodium nitrate ...	3·01	"
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Sodium chloride ...	2·13	"
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II.—MAY, 1903.

Total solid matter, 17·58 grains per gallon ; which lost on
ignition 6·60 grains.

Chlorine, 0·85 grains per gallon ; equal to sodium chloride 1·40
grains.

Nitrogen in oxidised forms, 1·00 grains per gallon ; equal to
nitric acid 3·86 grains.

Poisonous metals—None.

Degrees of hardness, 9·0 grains per gallon.

Oxygen absorbed, 0·03 parts per million.

Free ammonia, 0·01 parts per million.

Albuminoid ammonia, 0·04 parts per milli n.

The presence of nitrates is notable, and in most cases raises a
suspicion of contamination, but these salts appear to be natural and
characteristic of the water from the neighbourhood of Pollington.

In an analysis which I made of the water from the tap in the
laboratory I was surprised to find an absence of nitrates, as in
previous analyses these had been found in large amounts.

I found also the hardness to be 10 degrees according to Clark's scale.

Hospital Report.

On receiving a notification of the presence of infectious disease in a household, in most cases I make a visit of inspection myself; and when I am not satisfied that isolation is efficiently carried out, I sign an order for removal, having first received the approval of the practitioner in attendance. This is sent to the Matron who makes the necessary arrangements, and after removal of the patient (with infected bedding &c.), the Inspector disinfects the room which has been occupied by the patient.

At the Small Pox Hospital an efficient fire standard and hose has been fixed, which in the event of an outbreak of fire can be used immediately, and is capable of reaching to the furthest extremity of the buildings. So far no permanent arrangement has been made with the Rural District Council to admit patients in their district suffering from small pox.

SUMMARY.

Patients in hospital, January 1st, 1905	...	6
Number of patients admitted during the year...		187
,, ,, discharged	,,	172
,, ,, died	,,	10
,, ,, remaining Dec. 31st, 1905		11
Number of days the patients were in hospital...		4789
Average number of days per patient	...	25
Total number of days of staff	...	2260
Average cost per day per patient	...	2/10
,, ,, person	...	1/11

These figures compare very favourably with the previous year. 187 patients were admitted as compared with 67 in 1904, and the average cost per day per patient was 2/10, as compared with 3/1 in 1904. Included also in these figures is a sum of nearly £50 for painting, general repairs, &c., and nearly £40 for serum. During the year all the interior of the hospital has been renovated, including distempering the walls and passages, repairing the fire grates, and putting the garden and grounds in order.

Of the 37 scarlet fever patients, nine had severe attacks with complications. Several of these were notified as diphtheria, and clinically they had very bad throats. These cases were injected with anti-diphtheritic serum, and we noted the fact that it had a very marked curative effect, although the bacteriological returns negatived the presence of the Klebs-Loeffler bacillus.

Of the 141 diphtheria cases, 44 were severe attacks, and some were merely contact cases. Of the total number 16 developed various paralyses, and one tracheotomy was performed.

The rule we adopt in regard to the amount of serum injected is in ordinary cases if seen on the first day 2,000 units, and if not seen till the second day 4,000 units, on the third day 4,000 to 6,000 units, and 8,000 units on the fourth day. We have never gone beyond this amount at the initial dose, but if the case be severe we have given a second injection of 6,000 units after about six hours.

Might I again draw the attention of my medical confrères to the importance of giving an injection at once, when called in to see a case of diphtheria. I have always endeavoured to have the case promptly removed to hospital as soon as I have received the notification, but even then some time must elapse, and so far as the patient's recovery is concerned, valuable time lost. Eight deaths occurred from diphtheria in hospital.

A few patients were sent in to hospital as diphtheritic, but did not prove to be cases of true diphtheria. One boy developed measles after admission and gave rise to a second case, and one child developed chicken-pox after admission. One patient contracted another disease whilst in hospital. Eight patients had an antitoxin rash, the earliest came on nine days after injection, and the latest 12 days after injection.

505 specimens were received and reported upon from the bacteriological laboratory at Wakefield.

For other matters not referred to specifically, please see Mr. Ellis's report, and his suggestion in regard to the slaughter house is an admirable one, and has my warm approval.

I regret to record the fact that Percy Stamps, the Assistant Inspector, unfortunately contracted diphtheria in the discharge of his duties. He developed paralysis afterwards, but I am glad to be able to record that he is now recovering.

Public Swimming Baths.

The erection of Baths proceeds apace, and will be completed early in the Summer.

TABLE C. 1905.

GOOLE URBAN SANITARY DISTRICT.

Medical Officer of Health—ALEXANDER M. ERSKINE, M.D. Salary £80.

Sanitary Inspector—WM. HENRY ELLIS. Salary £110.

What other positions does the Sanitary Inspector fill? Canal Boats Inspector, Cowsheds and Dairies Inspector, and Petroleum Inspector.

WATER SUPPLY—Quality ... Moderately Soft. Action on Lead ... None.

Any extensions or change during 1904? ... Well and addition comp'eted.

Any inadequacy in any part? No.

SEWERAGE—Is the district systematically sewered? ... Yes.

Is rainfall from roads excluded? No.

EXTENSIONS OR IMPROVEMENTS DURING 1905.

Sewers—None. Manholes—Ten. Ventilating Shafts—None

Any inadequacy, and where? No.

SEWAGE DISPOSAL—System adopted ... Outfall into tidal river and tips.

Any extensions in 1905? ... No.

Any complaint in neighbourhood of sewage works? ... Yes, at tips.

SCAVENGING—Are the privy-middens, ash-places, etc., cleansed by Sanitary staff, by Contractors, or by Owners and Tenants? By Contractors.

Any inadequacy of scavenging? No.

ADOPTIVE ACTS—

Acts adopted during 1904 (or parts) None.

Any diseases added to Notification schedule, e.g., Measles, Chicken-pox, &c.? ... No.

BY-LAWS—Any adopted or) (a) Under the Public Health Act, 1875 No.
sanctioned during 1905) (b) under the Public Health Acts (Amendment) Act, 1890 No.

Regulated Buildings, Trades, &c.	No. in District.	No. on Register.	No.	General Condition.
Common Lodging Houses	4	4	.. periodically	fair.
Canal Boats	..	855	.. 121	good.
Slaughter Houses	3	3	.. periodically	good.
Cowsheds	8	8	.. do.	fair.
Offensive Trades	4	4	.. do.	fair.
(Please specify nature)	..	Tripe boilers, gut cleaners, and chemical works.		

COWSHEDS—Give date of Regulations in force under D.C.M. Order ... 1887.

Any special inspection made during 1905? Yes.

Any systematic veterinary inspection of cows? No.

Any action taken by outside Authorities, e.g., under 'Milk Clauses'
concerning milk supplied from this district? No.

INFECTIOUS DISEASE—What disinfecting apparatus is available? 2 Thresh's Emergency Disinfectors.

How are dwellings disinfected? By formalin and sulphur.

Any placards or handbills issued during 1905? Yes.

SCHOOLS—

No. closed during 1905 on account of sickness None.

Any ailment or contagious disease associated particularly with school life during 1905? Diphtheria and Whooping Cough.

FACTORY AND WORKSHOP ACT—

No. of Workshops in the district as per Register	..	..	..	..	—
No. of inspections made during 1905	..	—	Legal proceedings.	None.	
No. of Bakehouses included in above	..	..	..	..	11.
No. of Underground Bakehouses in district	..	..	..	..	None.
No. of Domestic Workshops	..	..	..	..	None.
No. of Domestic Factories in district	..	..	..	..	None.
No. of Lists of Outworkers' received	..	0,	representing 0 outworkers, and 0 contractors.		
Any action as to unwholesome or infected Outworkers' premises?	..			None.	
Any case of anthrax in Factories or Workshops during 1905	..			None.	

MIDWIVES ACT, 1902—

No. of cases of Perpetual Fever occurring in the practice of Midwives?	..	None.
No. of such Midwives disinfected by Sanitary Authority under Rule E. 5 of the Central Midwives Board	..	..
	..	None.

DWELLINGS—Number of houses built during 1905..

General character ..	..	villas and cottages.
Any occupied houses unfit for habitation?	..	..
Any overcrowding of persons in houses?	..	..
Any action taken under the Housing of the Working Classes Acts?	..	..
Is house-to-house inspection systematically made?	..	..
Are records kept?	..	..

ALLOTMENTS ACTS—No. of allotments provided under the Acts..

No. of allotments provided otherwise..	..	..	..	..	320.
Any need for further provision	..	..	..	..	Yes.

NUISANCES—

Total No. of Nuisances in hand at close of 1904 ..	6.	At close of 1905 ..	4.
Reported during 1905 ..	238.	Abated during 1905 ..	234.
Total No. of Legal Notices served for Abatement of Nuisances during 1905 ..	..	..	..
Total No. of Summons or other Legal Proceedings ..	..	..	..
No. of Sink wastes disconnected during 1905 ..	..	..	..
trapped ..	..	..	..
No. of Closets newly constructed during 1905 ..	167.	Kinds. ..	54 W.C.'s, 113 box closets.
reconstructed ..	..	34.	Kinds .. Galvanized iron.

METEOROLOGY—Mean Temperature for Year 1905. 47·2 Rainfall .. 20·80.

What action has been taken in regard to the following matters?

Seizures of Unsound Food ..	..	..	4.	Prosecutions..	None.
Samples under Sale of Food and Drugs Acts..	11.			Prosecutions..	None.
Has there been any poisoning during 1905 attributable to arsenical beer, ptomaines, or lead-contaminated water?	..	..	..	..	No.
River Pollution ..	..	..	..	..	..
Smoke observations taken..	None.	Legal Notices..	None.	Summons ..	None.
Burial Grounds—No. in District ..	2.	Any need for (a) extension ..	..	No.	
		(b) closure ..	..	No.	

Mortuaries—No in District (a) for accidents .. 1. (b) other .. 3.

BIRTHS DURING 1905—Males .. 295. Females .. 282. Total .. 577.

Number illegitimate, included in the above 28.
No. of Still Births (not included) None.

DEATHS DURING 1905—(1) Gross Deaths, i.e., Total actually registered
in the district, without any correction 301.

(2) Nett Deaths on which the rates are calculated. Males .. 151.
Females .. 144. Total 295.

Number uncertified, included in the above None.

TABLE B. 1905.

FACTORIES, WORKSHOPS, LAUNDRIES, WORKPLACES & HOMEWORK.

1.—INSPECTION.

Factories	Workshops	Premises.		No. of	No. of	No. of
				Inspections.	Written Notices.	Prosecutions
...	42	0	0
...	178	3	0
Total		220	3	0

2.—DEFECTS FOUND.

Particulars.	Number of Defects Found.	Remedied.	Referred to H.M. Inspector.	Number of Prosecutions	
			
Want of cleanliness	3	0	0

3.—OTHER MATTERS.

	Class.	Number.
Matters notified to H.M. Inspectors of Factories :—		
Failure to affix Abstract of the Factory and Workshop Act (S. 133)	...	6
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory Act (S. 5)		
Notified by H.M. Inspectors		
Reports (of Action taken) sent to H.M. Inspectors	...	1
Workshops on the Register (S. 131) at the end of 1905 :—		
Dressmakers, Plumbers, Bakehouses, Bootmakers, Tailors, Bookbinders and Printers	...	96

A. M. ERSKINE,

31st January, 1906.

Med. Officer of Health.

METEOROLOGY.

Councillor Grayburn has kindly furnished me with the following particulars :—

Month.	Total Depth.	Rainfall.			Number of Days on which '01 or more fell.'	Temperature.		
		Inches.	Depth.	Date.		Max. ^o	Min. ^o	Mean. ^o
Jan.	.71	.19	17th	13	59	24	38	
Feb.	.64	.12	21 & 26	15	46	31	39	
March	2.39	.52	29th	21	49	35	42	
April	1.84	.22	7th	17	52	33	43	
May	.90	.35	2nd	8	66	38	50	
June	2.22	.63	29th	9	69	48	58	
July	2.37	.80	23rd	6	73	51	63	
August	2.90	.64	26th	19	65	52	57.9	
Sept.	1.54	.40	10th	11	61	40	53.3	
Oct.	1.91	.42	15th	21	53	35	43.6	
Nov.	2.54	.53	11th	21	48	30	39.8	
Dec.	.84	.35	1st	9	48	31	38.6	
Total	20.80			170				

Sanitary Inspector's Report,

1905.

TO THE MEDICAL OFFICER OF HEALTH, FOR THE URBAN DISTRICT OF GOOLE.

SIR,—I have pleasure in submitting to you my annual report on sanitary work and improvements carried out in my department during the year 1905.

Nuisances.

No. of Inspections made	...	...	...	...	...	...	2,495
„ Written Notices served	...	...	...	...	...	...	189
„ Verbal Notices given	...	...	...	...	...	...	49
„ Statutory Notices issued by order of the Council	...	...	...	...	...	...	9
„ Summons issued	...	...	...	...	...	...	—
„ Nuisances dealt with and abated	...	...	...	...	...	...	273
„ Nuisances not abated	...	...	...	...	...	...	4
„ House Drains repaired and defects remedied	...	...	...	...	...	...	43
„ Yards repaved or repaired	...	...	...	...	...	...	6
„ Removal of fowls, rabbits, etc.	...	...	...	...	...	...	10
„ Removal of pigs	...	...	...	...	...	...	63
„ Dirty Houses cleansed, etc.	...	...	...	...	...	...	8
„ Defective and choked W.C.'s	...	...	...	...	...	...	11
„ W.C.'s without proper flushing apparatus	...	...	...	...	...	...	3
„ Sinks and cisterns disconnected from drains	...	...	...	...	...	...	4
„ Trapped gullies fixed in place of cesspools	...	...	...	...	...	...	8
„ Houses disinfected and cleansed after infection	...	...	...	...	...	...	194
„ Houses overcrowded	...	...	...	...	...	...	2
„ Miscellaneous nuisances dealt with	...	...	...	...	...	...	71
„ Manure heaps removed	...	...	...	...	...	...	11
„ Privy middens converted into box-closets	...	...	...	...	...	...	34
„ Soil boxes provided in place of privy middens	...	...	...	...	...	...	53
„ New urinals erected on private property	...	...	...	...	...	...	1
„ Defective and broken soil boxes	...	...	...	...	...	...	242
„ Repairs and alterations to urinals (private property)	...	...	...	...	...	...	1
„ Ash-pits repaired	...	...	...	...	...	...	10
„ Closet boxes repaired and new ones provided	...	...	...	...	...	...	270
„ Soil boxes and dry ash boxes emptied weekly	...	...	...	...	...	...	3,076
„ Ash-pits emptied every month	...	...	...	...	...	...	715
„ Loads of night-soil removed during the year	...	...	...	...	...	...	8,091
„ Loads of cumbersome refuse removed (Monday's collection)	...	...	...	...	...	...	630
„ Galvanised iron soil boxes provided	...	...	...	...	...	...	300

It should be understood that several sanitary defects are occasionally included in one notice, hence the number of nuisances abated above the number of notices.

Canal Boats Acts, 1877-84.

No. of Boats inspected during the year	... ... ... ...	121
Additional inspections are occasionally made to ascertain if defects, etc., have been remedied and notice fully complied with.		
„ Boats complying with the Acts	... ... ... ...	98
„ Boats contravening the Acts	... ... ... ...	23— 121
„ Boats on the register	... ... ... ...	738
„ Highest on the register	... ... ... ...	855
„ Boats registered during the year	... ... ... ...	6
„ Transferences of ownership	.. ... ... ...	11
„ Duplicate certificates issued	... ... ... ...	6
„ Neglect of owners not properly marking and numbering the boats	... ... ... ...	5
„ Overcrowding, young girls occupying cabins	... ...	2
„ Dirty cabins requiring more attention	... ... ...	3
„ Cabins requiring re-painting	... ... ...	6
„ Notifications of infectious diseases	... ... ...	—
„ Boats requiring re-registration because of structural alterations to cabins	... ... ... ...	—
No structural alterations to boats' cabins have come under my notice during the year.		
„ Letters written during the year	... ... ... ...	76
„ Notices served, written and verbal	... ... ...	23

The cabins of the 121 canal boats inspected were registered to accommodate the following number of persons: aft cabins, 338 adults and 73 children; fore cabins, 216 adults and 19 children; whilst the actual number occupying were 166 men, 39 women, and 26 children. It is gratifying to find a great diminution in children on canal boats.

I am of the opinion that during my years of inspection of canal boats that a great change for the better has been effected amongst the people who reside thereon. To me it is noted that every year there is a less number of children living on board. The younger men and women seem more intelligent and respectful than was the case in years gone by.

Food and Drugs Act.

During the year eleven samples of new milk have been purchased from cowkeepers and purveyors of new milk, these were sent to the County Analyst, who reported as follows: "Each sample was genuine and of good quality." Many samples have also been taken by the West Riding County Council's officials.

Dairies, Cow Sheds, and Milk Shops.

Number of persons on the register:

Cowkeepers and purveyors of milk	... ... ... ...	9
Town purveyors of milk	... ... ... ...	9
Out-of-town purveyors	... ... ... ...	15—33

There are nine registered cow sheds in the Council's boundary. One cow keeper has recently removed his business to the country. At the present there are six brick buildings and three wooden ones, all of which have been regularly inspected. Notices have been given for better cleansing, whitewashing and removal of manure heaps; such notices have been promptly complied with.

Public Mortuary.

During the year three bodies have been conveyed to the mortuary. One, a child, died from an infectious disease, and was brought from a distance to be interred in the cemetery. In this case we refused to let the body be removed to a dwelling-house, and suggested the mortuary, which propositions the parents fell in with. The building has been kept clean and tidy and all required has been provided; no complaints have been made.

Public Slaughter House.

The work in this department has been carried out during the year with satisfaction to everyone concerned. The premises have been kept exceedingly clean and tidy. Great care has been exercised in keeping the pining pens, etc., clean and well bedded for the cattle; this is a consideration, and one which helps to keep the staff on friendly terms with the butchers.

During the year the butchers approached the Council with a view to providing a new set of beam scales. After investigation and inspection of the old ones they gave directions that a new pair be ordered and fixed. This has been done, and the butchers greatly appreciate the Council's action and promptness in the matter.

Some time ago I reported to your Council with regard to the many repairs, etc., required to be done to these premises, also the removal of an old iron water tank over the boiler house. The owners were written to and asked to put the buildings into a better state of repair. Nothing has been done as yet, and considering what the Council have spent on the premises, and are likely to spend if they continue to execute repairs and occasional improvements, I am compelled to again remind you that I am sure it would be the best and cheapest for the Council to erect a suitable building of their own. The rent paid annually would nearly pay the interest on borrowed money, besides, serious consideration should be given to the present terms of their tenancy, by which notice to quit might be given any month. It is evident to my mind that the Council would be compelled to provide another slaughter house, which could not be built in a day.

I append a comparison table of beasts, sheep, pigs, etc., which have been slaughtered during the years 1904-5.

Water Analysis.

Several samples have been taken from wells during the year. In cases of samples that were condemned, notices were served on the owners, who readily complied by having a town's supply provided.

Common Lodging Houses.

The four registered common lodging houses in the Council's boundary are situate as follows:—One in the East Ward, two in the Central Ward, and one in the South Ward.

Although the construction of these houses is not adapted to the purpose for which they are used, yet under the circumstances the best is made of them. They are regularly inspected, and beyond a few minor irregularities, which have always received immediate attention, they have been fairly well conducted and kept reasonably clean. At the same time I must again remind you of the great necessity for a good up-to-date lodging house in the town, municipal or otherwise.

During the year, especially in the winter months, the town has been infested with gipsies, who rent houses in the lower quarters of the town. This causes much anxiety, and almost daily visits, to force them to keep their houses in anything approaching a sanitary condition. They are a most filthy lot, and occasionally their friends from other towns pay visits, when overcrowding is carried on to a great extent. In all fairness, and for the benefit of the town generally, I am taking steps to approach the landlords with a view to preventing this class of people from again renting houses in the town.

Night Scavenging.

During the year the night scavenging of the town has been carried out satisfactorily by the respective contractors. The contracts for the work were re-let in August last, when Mr. E. Wroot secured No. 1 District and Mr. H. B. Thorp Nos. 2 & 3 Districts. In each case the contract prices were less than they have been for many years.

The contractor for Nos. 2 and 3 Districts proposed to the Council that he would, at his own cost, and with their consent, erect a tip on the L. and Y. Railway siding, off Bridge Street, and that he also proposed to take much or all of the nightsoil direct into the country. With regard to its erection and their consent the Council had no option. Their only interference would be, in the event of a nuisance being created, to enforce the owner of such tip to remedy the same. The said tip has been erected for some time, but up to the present has not been used. At the latter end of the old contractor's term the Council decided to put in force Section 5 of the specification, i.e., the use of bell carts to collect all cumbersome refuse every

week, so as to make a separation and keep nightsoil proper apart from such refuse. Since the beginning of last July this system has been carried out and has proved a great success, and is well appreciated by householders and all concerned. Over 630 loads have been removed in the 26 weeks.

The new soil carts, of which we now have a full complement, have proved a great improvement in every way against the old-fashioned tumbler cart. It is, therefore, needless for me to make further comment thereon.

Small Pox.

During the year one case of small pox was notified. When the case was reported to me I at once removed the patient to the hospital, I then thoroughly fumigated the house and washed the walls and ceiling with a strong solution of formalin. Afterwards the walls and ceilings in every room and cellar were thoroughly lime-washed ; several lots of old bedding and other effects were burnt, and every precaution taken against the disease spreading. The other inmates of the house, seeing the seriousness of the case, were easily persuaded to isolate themselves and take every care. I have no hesitation in saying that your orders and directions were fully complied with both by the people and myself.

Disinfecting Station.

During the year the undermentioned wearing apparel, etc., have been disinfected under steam at the sanatorium :

Blankets	425
Sheets	214
Counterpanes	175
Pillows	57
Pillow-slips	244
Beds	23
Dresses	119
Petticoats	189
Underclothing	354
Boots.....	147
Hats	86
Coats.....	118
Waistcoats	43
Trousers	60
Stockings	167
Shawls	74
Dressing G	3
Sundries	374
	—
	2867
	—

Pig Keeping.

Pig-keeping on premises within thirty feet from a dwelling-house has been a source of nuisance for many years, especially in the North and West Wards. This practice was reported to the Council in the early part of the year, when they decided that a reasonable notice shculd be given to all offenders of this bye-law. Many complied, but others disregarded the notices until pressure was brought to enforce compliance. This was the final stroke, and I am pleased to say that all pigs have now been removed, and in some instances the pig-styes. To my mind no harm was caused in their removal, and that the majority of pig keepers to-day rejoice in the action the Council took in the matter.

I am, Sir, yours faithfully,

W. H. ELLIS,

SANITARY INSPECTOR.



BEASTS, SHEEP, PIGS AND CALVES SLAUGHTERED AT THE
COUNCIL'S SLAUGHTER-HOUSE.

1904.

	Beasts. 1s. 6d.	Sheep. 3d.	Pigs. 6d.	Calves 9d.	Rent. s. d.	No. of pigs at 6d extra ov'r w't	Amount at 6d extra. s. d.	Total. £ s. d.
January ...	94	94	166	—	—	35	17 6	13 5 0
February...	82	98	170	—	—	33	16 6	12 9 0
March	82	104	152	1	1/-	31	15 6	12 2 3
April	112	146	128	25	1/-	17	8 6	14 19 3
May	82	171	96	3	—	20	10 0	11 6 0
June	87	188	80	2	—	16	8 0	11 7 0
July	116	282	97	—	—	9	4 6	14 17 6
August	86	208	74	1	—	9	4 6	11 3 3
September.	86	169	114	—	—	24	12 0	12 0 3
October....	110	176	191	1	—	46	1 3 0	16 8 3
November.	87	119	181	1	—	35	17 6	13 9 0
December.	98	121	226	1	—	53	1 6 6	15 17 6
	1122	1876	1675	35	2/-	328	£8 4 0	£159 4 3

4708

1905.

January ...	84	103	180	1	—	32	16 0	12 18 6
February ...	88	107	175	—	—	30	15 0	13 1 3
March	92	114	158	—	—	24	12 0	12 17 6
April	114	154	170	27	—	26	13 0	16 7 9
May	99	165	104	5	—	9	4 6	12 7 9
June	97	213	75	5	—	11	5 6	12 5 6
July	114	287	69	1	—	12	6 0	14 4 0
August	97	208	63	3	—	10	5 0	11 17 3
September	121	221	137	—	—	30	15 0	16 0 3
October ...	103	147	139	2	—	32	16 0	13 18 3
November.	96	120	135	1	—	20	10 0	12 13 3
December	114	119	203	2	—	38	19 0	16 2 9
	1219	1958	1608	47	—	274	£6 17 0	£164 14 0

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